

# Dedicated to the Memory of Brennie E. Hackley, Jr, and Frederick R. Sidell



## **DR BRENNIE E. HACKLEY, JR**

Chemist, Teacher, Scientific Advisor

July 29, 1924 – November 5, 2006

Dr Hackley received a BS in chemistry from Wilberforce University in 1946. Following graduation, he enlisted in the US Army and was later commissioned as an officer. After more than 30 years' service, he retired from the US Army Reserve Corps in 1981 at the rank of colonel. Dr Hackley began his civilian career in 1952 as an organic research chemist in the Medicinal Chemistry Branch of the Army Chemical Center and went on to earn advanced degrees in chemistry from the University of Delaware, including a PhD in 1957. During his career, Dr Hackley studied the relationship between chemical structures and chemotherapeutic activity in reference to efficacy against toxic agents. He contrib-

uted to the elucidation of mechanisms of reactions of nucleophiles with organophosphorus compounds and synthesized a number of oximes, for which he held 18 patents. One oxime synthesized by Dr Hackley, toxogonin, was adopted as an antidote against chemical nerve agents by the US Air Force.

In 1984 Dr Hackley was designated Chief Scientist and Scientific Advisor to the Commander of the US Army Medical Research Institute of Chemical Defense (USAMRICD). During Operation Desert Storm, Dr Hackley responded to emergency calls by combat divisions for predeployment briefings on medical management of chemical casualties, initiating a traveling training program that prepared deploying medical personnel to treat soldiers on the battlefield if chemical weapons were employed. As an instructor and course director for USAMRICD's Medical Management of Chemical and Biological Casualties course, Dr Hackley delivered lectures in Saudi Arabia; Johnston Island, Hawaii; Okinawa, Japan; and Germany on pulmonary agents, cyanide, vesicants, and nerve agent threats.

While serving as chairman of the Scientific Steering Committee on Nerve Agent Antidotes, he advised the Command that one of the precursors for the then current synthesis of the oxime HI-6, under consideration as a replacement for the fielded 2-PAM chloride, was carcinogenic and would not pass scrutiny by the Food and Drug Administration. Additionally, Dr Hackley convinced the Command that HI-6 wasn't cost effective, and that its effectiveness compared to 2-PAM chloride was not great enough to justify its replacement.

Dr Hackley represented the US Army Medical research program competently and effectively for almost 6 decades. His efforts significantly improved communication and relationships between the Chemical and Medical Corps and strengthened USAMRICD's image as the lead laboratory for the development of medical countermeasures for chemical threat agents.



**DR FREDERICK R. SIDELL**

Physician, Teacher, Scientist

July 27, 1934 – February 14, 2006

No physician has contributed more to the US Army Medical Department's chemical defense training and education programs than Dr Frederick Sidell. Dr Sidell graduated from Marietta College in Marietta, Ohio, in 1956, and also later from the New York University School of Medicine. He completed his internship and residency in internal medicine at Cleveland Metropolitan General Hospital. Dr Sidell initially served 2 years on active duty with the Army Medical Corps in the rank of captain. He was stationed at Edgewood Arsenal in Maryland, an assignment that would determine his future in medicine and lead to his subsequent employment with the Department of Defense. While with the Department of Defense Dr Sidell became one of the world's leading experts and educators in the field of medical effects of chemical warfare agents. He retired in 1995 after 30 years in government service.

In the late 1960s, when training in medical chemical defense was very limited, Dr Sidell and some of his colleagues recognized the need for specialty training and developed a course for military medical personnel on the medical management of chemical agent casualties. Dr Sidell guided the development of this new training

program and served as the course director for many years. Eventually, such training was expanded to additional courses for nonmedical personnel and military leaders. Dr Sidell also prepared and updated detailed educational materials addressing nerve agents, vesicants, cyanide, and pulmonary agents, and provided education and training for the Chemical Stockpile Emergency Preparedness Program and the Domestic Preparedness Program.

Dr Sidell's expertise was nationally and internationally recognized, and he was often called upon for highly sensitive assignments that required technical expertise. These included a trip to southeast Asia in 1979 to investigate the alleged use of "yellow rain" against the Hmong in Laos. In 1988, he examined Kurdish civilian casualties who were victims of chemical warfare in their homeland. He traveled to Japan in 1995 to assist and advise Japanese physicians on the care of casualties from a terrorist-led sarin nerve agent incident in the Tokyo subway system.

Dr Sidell was the lead editor of the first edition of *Medical Aspects of Chemical and Biological Warfare*, published in 1997, contributing to many of the chapters on chemical warfare agents. His research and studies have been published in over 100 reports and articles, and he also wrote several handbooks on the treatment of chemical casualties. Following his official retirement, Dr Sidell continued providing education and training in the management of chemical agents and casualty treatment to civilian first responders, including many emergency medical treatment units throughout the United States.

In addition to the many achievement awards and commander's medals received by Dr Sidell, a new building at the Edgewood area of the Aberdeen Proving Ground was named the Sidell Learning Center in 2002 in recognition of his great contribution to medical education and training. In 2003 Dr Sidell was inducted into the Marietta College Hall of Honor, becoming one of only 24 people to be so recognized at that time. Dr Sidell's knowledge, experience, and dedication contributed greatly to the development of the outstanding medical training programs throughout the Department of Defense today. His insight and pragmatic views have guided the development of medical policy against weapons of mass destruction and medical research on safe and effective medical countermeasures against current and future chemical threats facing the military.



